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EXAMINER

WALKENHORST, DAVID W

ART UNIT PAPER NUMBER

2831

DATE MAILED: 05/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,006

Applicant(s)

GUSTINE ET AL.

Examiner

W. David Walkenhorst

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-35 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11-16, 18 and 19 is/are rejected.
- 7) ☒ Claim(s) 5, 10, 17 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8,9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-4, 6-9, 11-16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fathi (US 4,656,559) in view of Hata et al. (US 4,815,913).

Regarding claim 1, Fathi discloses a frame (10) comprising an array of slots (24), each slot containing one of the circuit cards (40) but does not disclose a cam selectively engageable with the frame for clamping the circuit cards within the frame. Hata et al. teaches a cam (9) for clamping the circuit cards in col. 3, lines 50-55. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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incorporate the cam of Hata et al. with the frame of Fathi for the purpose of providing a more secure means of attachment of the circuit boards.

Regarding claim 2, Fathi as modified by Hata et al. above further discloses that the frame is partitioned into first and second sub-frames by a first partition and each of the first and second sub-frames partitioned into an array of slots by a plurality of second partitions (see Figure 2 of Fathi).

Regarding claim 3 and 18, Fathi as modified by Hata et al. above further discloses that the first sub-frame is movable relative to the second sub-frame and is in slidable contact with the receptacle (see Fathi, col. 1, lines 29-32).

Regarding claims 4 and 19, Fathi as modified by Hata et al. above further discloses that the first partition is in slidable contact with the receptacle (see Fathi, col. 1, lines 29-32).

Regarding claim 6, Fathi as modified by Hata et al. discloses all of the limitations of claim 1 above, but does not disclose that the cam is selected from the group consisting of a pair of cams in tandem, a pair of cams, and two tandem pairs of cams. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include another cam, making a pair of cams, for the purpose of providing a more secure means of attaching the circuit boards in the slots, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claims 7 and 14, Fathi as modified by Hata et al. above further discloses that the cam is disposed within the receptacle (see Figure 2 of Hata et al.).

Regarding claims 8 and 15, Fathi as modified by Hata et al. above further discloses that the cam is rotatably attached to the receptacle (see Figure 2 of Hata et al.).

Regarding claims 9 and 16, Fathi as modified by Hata et al. above further discloses that the cam is disposed on a shaft that rotates the cam into and out of engagement with the frame (see Figure 2 of Hata et al.).

Regarding claim 11, Fathi as modified by Hata et al. discloses all of the limitations of claim 1 above, but does not disclose that the frame comprises a pair of frames, the cam attached to one of the pair of frames and selectively engageable with the other of the pair of frames for clamping circuit cards within each of the pair of frames. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include another frame, making a pair of frames, the cam attached to one of the pair of frames and selectively engageable with the other of the pair of frames for clamping circuit cards within each of the pair of frames for the purpose of providing a more secure means of selectively attaching the circuit boards in the slots, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding claim 12, Fathi discloses at least one frame (10) partitioned into first and second sub-frames by a first partition, each of the first and second sub-frames partitioned into an array of slots (24) by a plurality of second partitions, each slot containing one of the circuit cards (40) but does not disclose a cam selectively engageable with the first sub-frame to clamp the circuit cards within the at least one

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frame. Hata et al. teaches a cam (9) for clamping the circuit cards in col. 3, lines 50-55. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the cam of Hata et al. with the first sub-frame of Fathi for the purpose of providing a more secure means of attachment of the circuit boards.

Regarding claim 13, Fathi as modified by Hata et al. discloses all of the limitations of claim 12 above, but does not disclose that the cam is selected from the group consisting of a pair of cams in tandem, a pair of cams, and two tandem pairs of cams. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include another cam, making a pair of cams, for the purpose of providing a more secure means of attaching the circuit boards in the slots, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Allowable Subject Matter

4. Claims 5, 10, 17 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 21-35 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the indication of the allowability of claims 5, 20 and 21-23 is the inclusion therein, in combination as currently claimed, of the limitation of "sliding

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the first partition into contact with the circuit cards of the second sub-frame to clamp the circuit cards contained in the slots of the first sub-frame between the first sub-frame and the first partition". This limitation was found in claims 5, 20, and 21-23 and is neither disclosed nor taught by the prior art of record, alone or in combination.

The primary reason for the indication of the allowability of claims 10 and 17 is the inclusion therein, in combination as currently claimed, of the limitation of "the cam comprises a curved surface comprising serrations". This limitation was found in claims 10 and 17 and is neither disclosed nor taught by the prior art of record, alone or in combination.

The primary reason for the indication of the allowability of claims 24-31 is the inclusion therein, in combination as currently claimed, of the limitation of "the at least one cam rotatably attached to the first frame and adapted to engage the second frame to exert a force on each of the first and second frames for clamping the circuit cards within the first and second frames". This limitation was found in claims 24-31 and is neither disclosed nor taught by the prior art of record, alone or in combination.

The primary reason for the indication of the allowability of claims 32-35 is the inclusion therein, in combination as currently claimed, of the limitation of "to slide the first partition of each of the first and second frames into contact with the circuit cards of the second sub-frame of each of the first and second frames to clamp the circuit cards contained in the slots of the first sub-frame of each of the first and second frames between the first sub-frame and the first partition of each of the first and second

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frames". This limitation was found in claims 32-35 and is neither disclosed nor taught by the prior art of record, alone or in combination.

Response to Arguments

7. Applicant's arguments filed May 5, 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the cam of Hata et al. with the frame of Fathi for the purpose of providing a more secure means of attachment of the circuit boards.

In response to applicant's argument that neither Hata nor Fathi disclose a cam selectively engageable with the frame for clamping circuit cards, the Examiner notes that it would have been obvious to one of ordinary skill in the art at the time the invention was made to include another frame, making a pair of frames, the cam attached to one of the pair of frames and selectively engageable with the other of the pair of frames for clamping circuit cards within each of the pair of frames for the purpose

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of providing a more secure means of selectively attaching the circuit boards in the slots, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

In response to applicant's argument that receptacles are neither taught nor suggested, the Examiner notes that it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness on the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. David Walkenhorst whose telephone number is (703) 306-5402. The examiner can normally be reached on M, Tu, Th, F 8:00AM-5:30PM, and alternate Weds.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-0956. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Walkenhorst:wdw
May 7, 2003


DEAN A. REICHARD
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